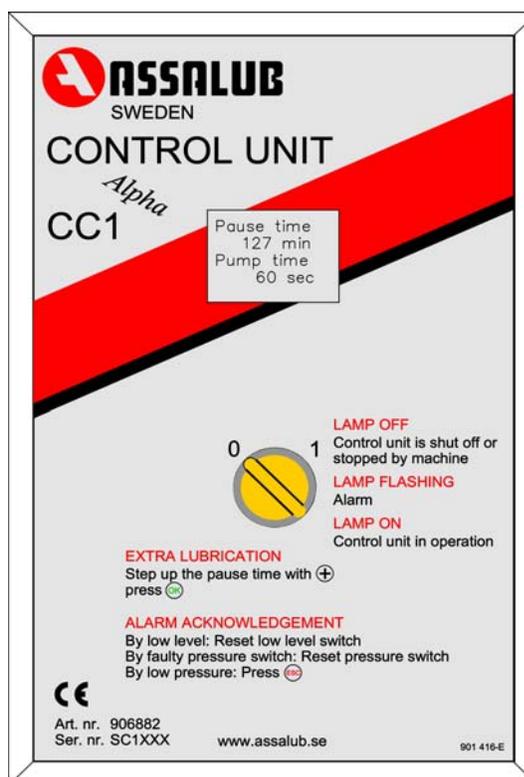




CONTROL UNIT FOR DUAL-LINE LUBRICATION SYSTEM

CC1 Alpha
Art.no. 906882

USER'S MANUAL



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1. DESCRIPTION

The CC1 Alpha is an electronic control and monitoring unit for controlling and monitoring of a Dual-line lubrication system. External pressure switches shall be connected to the unit to control the system pressure.

FUNCTIONS

- Adjustable pumping and pause times.
- Possibility to perform extra lubrication.
- Machine interlocking – lubrication is performed only when the machine is operating.
- Output for operating indication with alarm for too low pressure during pumping phase, for low grease level in drum and for continuously closed pressure switch.
- Counter of lubrication cycles performed.

DEFINITIONS

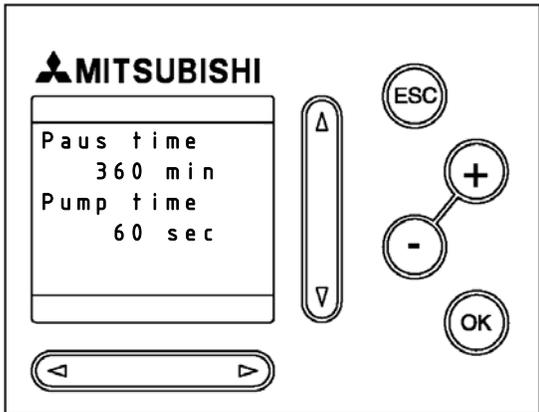
Line 1, Line 2	The two headers of the dual-line system, which are being pressurized in turn.
Pause time	The time between pump stop and pump start.
Pressurizing time	The time from pump start to the moment when the set pressure has been reached and signalled and the pump stops.
Pumping time	This shall be longer than the pressurizing time. If the set pressure is not being reached during the set pumping time the low pressure alarm will be activated.
Lubrication interval	The time between two lubrications of each single lube point, i.e. two pressurizing times and two pause times.

2. DATA

Enclosure	IP 65
Dimensions	230x300x145 (WxHxD)
Weight	4.2 kg.
Supply voltage	100 – 240 V AC
Power consumption	30 W
Outputs:	Pump, Reversing two-way valves 24V DC max 8W. Operation indication / Alarm 24V DC max 3W.
Inputs:	24V DC
Setting range	Pumping time 1 - 32767 sec Pause time 1 - 32767 min

3. HANDLING

SETTINGS



To be able to change the settings – open the bridge 111.

Mark the time to be changed with the up/down arrow.

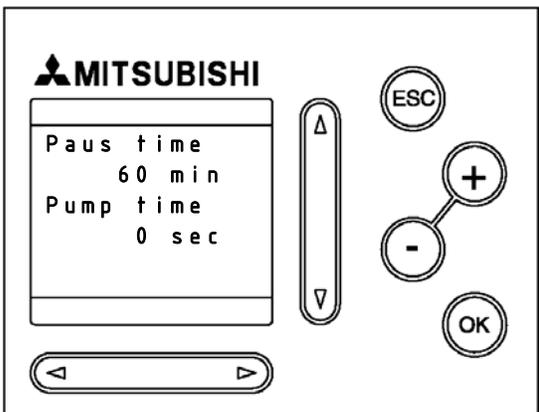
Adjust the setting by pushing the + or - button.

Confirm the new setting by pressing OK.

Close the bridge 111.

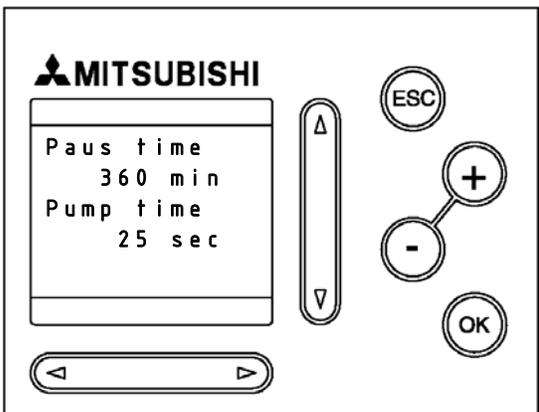
NORMAL WORKING CONDITIONS

During normal working condition the pause time elapsed is being showed.



In this case 60 min. of the set pause time have elapsed.

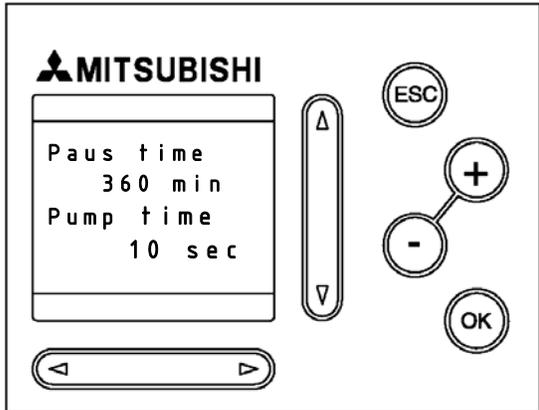
During the lubrication phase the pumping time is being shown.



In this case the pump has been in operation for 25 sec.

EXTRA LUBRICATION

An extra lubrication can be activated any time.

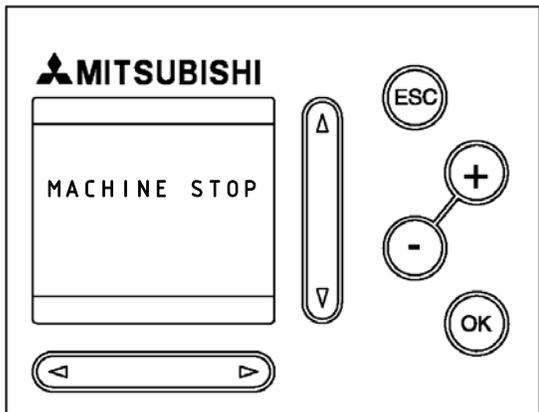


Increase the pause time by stepping it up with the + button until it equals the set pause time. Push the OK button to confirm. The pump starts and one of the headers is being pressurized until the set pressure is being reached and the pump stops. The next pause time starts.

Repeat the above procedure to pressurize the other header. When this is finished all lube points have been extra lubricated once.

MACHINE INTERLOCKING

The lubricated machine can stall the Control Unit – so called machine interlocking.



If the machine interlocking contact is being closed (the lubricated machine stops) the ongoing lubrication phase, if any, will be finished. The time counter then stops counting time and the control unit becomes idle.

When the machine is being started again the interlocking is released and the control unit continues the lubrication cycle from the position it was stopped.

OPERATION INDICATION / ALARM OUTPUT

The lamp in the orange coloured on/off-switch knob in the front of the cabinet indicates the operation status and alarm.

Lamp is off

The Control Unit is either shut-off or machine interlocked.

Lamp is flashing

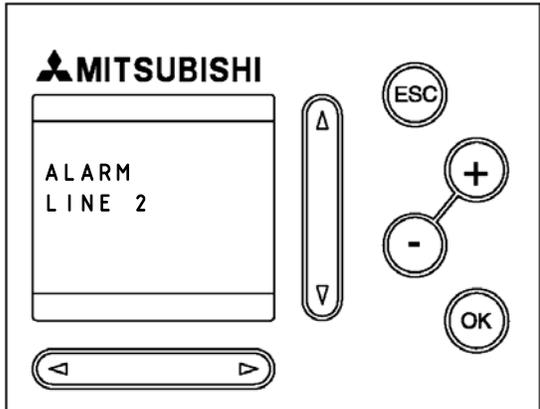
Alarm is activated

Lamp is on steadily

The Control Unit is operating normally.

ALARM

If the confirmation from the pressure switch has not been obtained during the pump time, an alarm will be initiated.

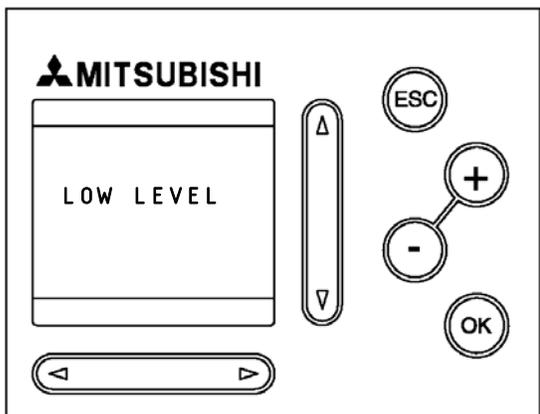


In this case the pressure switch confirmation has not been obtained during the pressurizing of Line 2.

The lubrication cycle is stopped.

The alarm can be overridden by pushing the ESC button. This will start another pressurizing of Line 2.

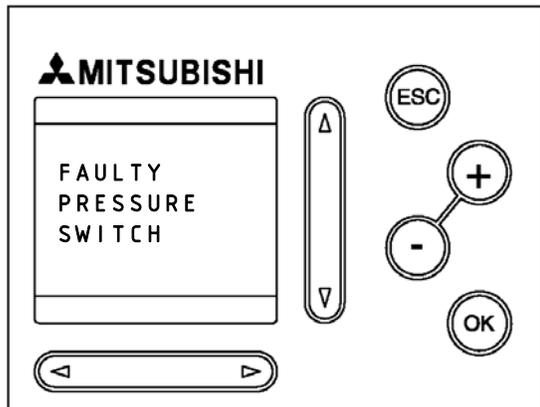
When the low level switch closes, an alarm indicating near grease shortage is activated.



This will stop the lubrication cycle.

The alarm can only be removed by restoring the switch – i.e. by replacing the empty grease drum.

If the pressure switch is closed when the pressurizing phase starts, an alarm indicating faulty pressure switch is activated.

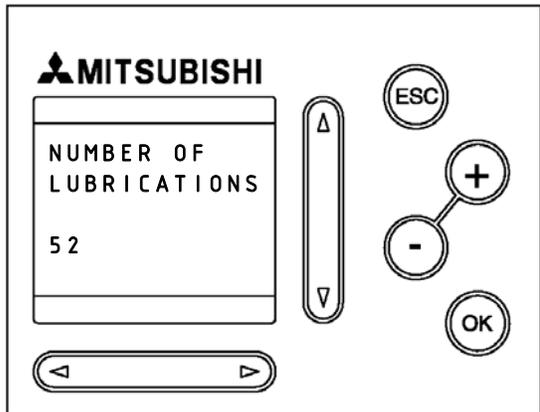


This will stop the lubrication cycle.

The alarm can be overridden by pushing the ESC button. If the alarm remains the faulty switch must be repaired or replaced.

COUNTER

By pressing the right arrow, the number of lubrication cycles performed is being showed.



In this case 52 complete lubrication cycles of both lines have been performed.

The counter counts up to 32000.
Thereafter it starts from 0 again.

1 2 3 4 5 6 7 8 9 10

A

B

C

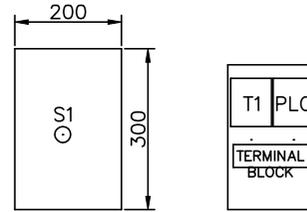
D

E

F

G

CONTROL. CABINET
MOUNTING PLATE



DEPTH: 180CM

Filename: 906882

Designed by: KS

Drawn by: KS

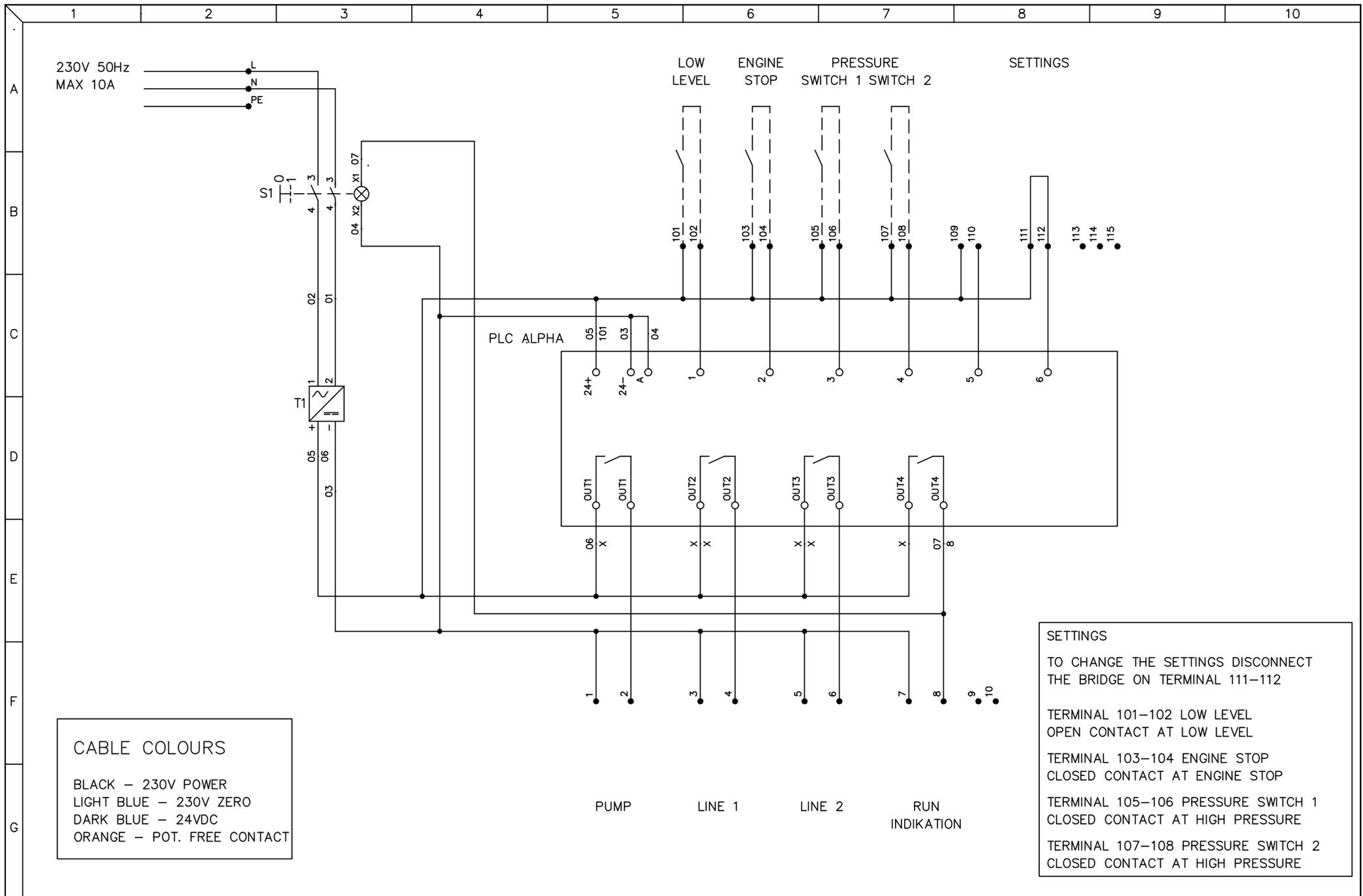
Date: 20130807



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CC1 ALPHA
CONTROL EQUIPMENT
906882
LAYOUT

Proj.no. 906882	Sheet 101	Cont. 201
Drawing no 906882		
Customer referens 906882		A



CABLE COLOURS

BLACK – 230V POWER
 LIGHT BLUE – 230V ZERO
 DARK BLUE – 24VDC
 ORANGE – POT. FREE CONTACT

SETTINGS

TO CHANGE THE SETTINGS DISCONNECT THE BRIDGE ON TERMINAL 111-112

TERMINAL 101-102 LOW LEVEL
 OPEN CONTACT AT LOW LEVEL

TERMINAL 103-104 ENGINE STOP
 CLOSED CONTACT AT ENGINE STOP

TERMINAL 105-106 PRESSURE SWITCH 1
 CLOSED CONTACT AT HIGH PRESSURE

TERMINAL 107-108 PRESSURE SWITCH 2
 CLOSED CONTACT AT HIGH PRESSURE

Filename: 906882
 Designed by: KS
 Drawn by: KS
 Date: 20130807



CC1 ALPHA
 CONTROL EQUIPMENT
 906882
 CIRCUIT DIAGRAM

Proj.no. 906882	Sheet 301	Cont. -
Drawing no 906882		
Customer referens 906882		A